AUGUST 15, 2006

EVOLUTION OF THE HEDGE FUND INDUSTRY, RISK AND RETURN:

ARE THE RISK PROFILES OF HEDGE FUNDS CHANGING OVER TIME?

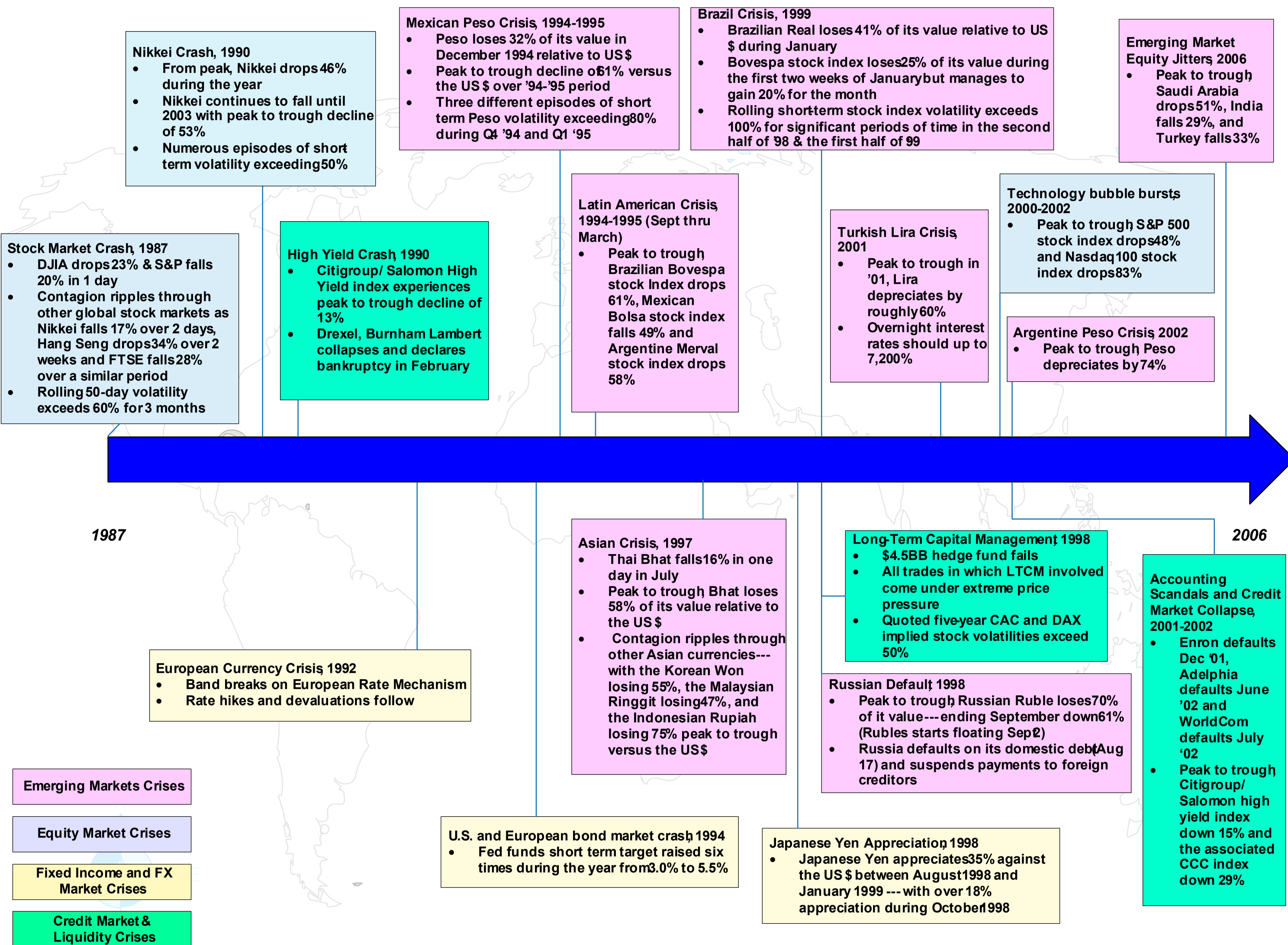
Panel Discussion of David Modest

JPMorgan

What is Risk?

- Market / Price risk: *What causes prices to move?*
  - Fundamental risk
  - Liquidity / Noise risk
- Operational risk: *Do the pipes and control mechanisms work?*
- Financing risk: *Are the assets and liabilities duration matched and is the financing prudent?*
- Systemic risk: *Can any of the above cause markets to behave in a less than orderly fashion?*

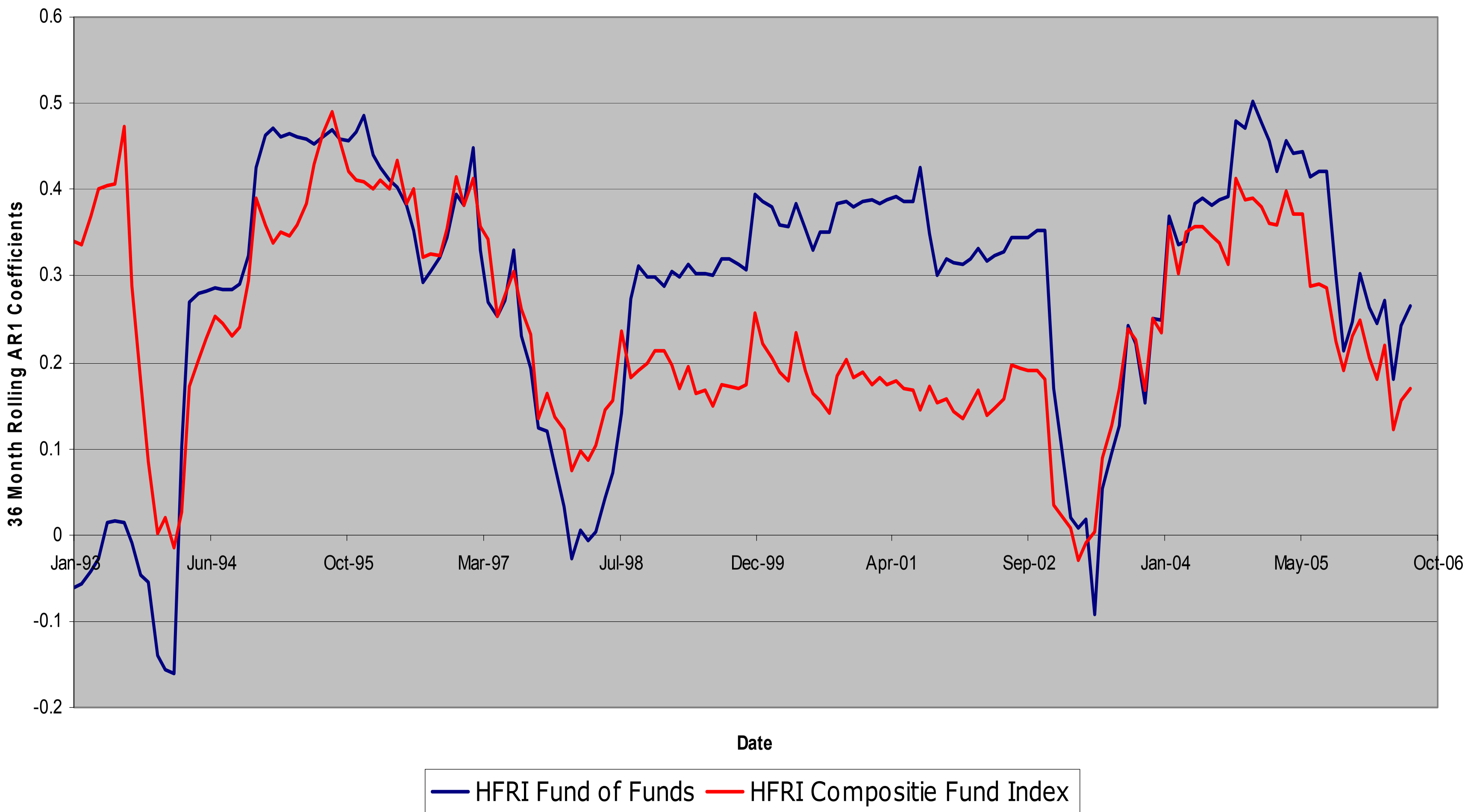
The Persistence of Global Financial Crises



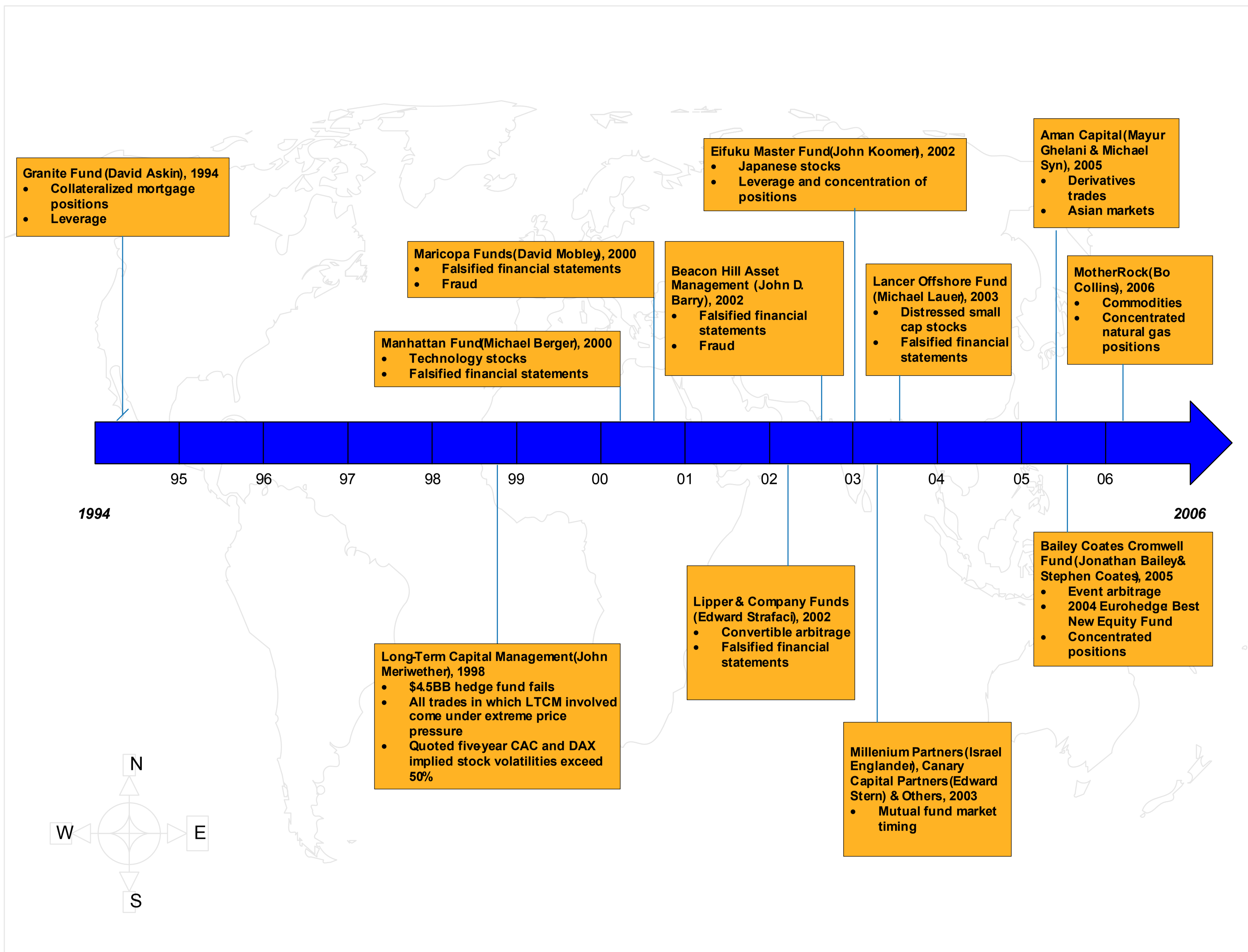
Are the Market Risk Profiles of Hedge Funds Changing Over Time?

- Possible sources of change:
  - Fundamentals change affecting asset volatilities (e.g. apparent fragile equilibrium in global energy markets)
  - Liquidity / noise dynamics change (e.g. de-levering of FNMA, expansion in the scope of HF investments)
    → affecting volatility of particular assets
  - Leverage changes affecting NAV / equity volatilities
  - Portfolio dynamics change (e.g. correlations of price movements)
  - Opportunity set changes due to financial innovation (e.g. credit derivative and tranche markets)

The Serial Correlation of Hedge Fund Returns



The Persistence of Hedge Fund Failures



Are the Operational Risk Profiles of Hedge Funds Changing Over Time?

- Possible sources of change:
  - Financial Innovation
    - Trade confirm procedures
      - ``A July 2005 report by a new Counterparty Risk Management Policy Group (CRMPG II) called attention to the fact that the clearing and settlement infrastructure for credit derivatives (and over-the-counter derivatives generally) had not kept pace with the volume of trading.In particular, a backlog of unsigned trade confirmations was growing, and the acceptance by dealers of assignments of trades by one counterparty without the prior consent of the other, despite trade documentation requirements for such consent, was becoming widespread.'' (Testimony of Patrick M. Parkinson
        Deputy Director, Division of Research and Statistics before the Subcommittee on Securities and Investment, Committee on Banking, Housing, and Urban Affairs, U.S. Senate May 16, 2006)
    - Derivative settlement procedures (e.g. Delphi)
  - Position marking procedures
    - Third party vendors
  - Mark to market process
    - Bilateral vs. one-way
    - Netting
  - Fund segregation procedures
    - Refco

Are the Financing Risk Profiles of Hedge Funds Changing Over Time?

- Possible sources of change:
  - Collateral and the duration match between assets and liability
    - Hedge fund push in less and less liquid assets
  - Counterparty risk management
    - ``Counterparty Risk Management Policy Group (CRMPG), which in July 1999 issued its own complementary recommendations for improving counterparty risk management practices.
    - The BCBS sound practices have been incorporated into Federal Reserve supervisory guidance and examination procedures applicable to banks' capital market activities. In general terms, routine supervisory reviews of counterparty risk management practices with respect to hedge funds and other counterparties seek to ensure that banks (1) perform appropriate due diligence in assessing the business, risk exposures, and credit standing of their counterparties; (2) establish, monitor, and enforce appropriate quantitative risk exposure limits for each of their counterparties; (3) use appropriate systems to measure and manage counterparty credit risk; and (4) deploy appropriate internal controls to ensure the integrity of their processes for managing counterparty credit risk.'' (Testimony of Patrick M. Parkinson
      Deputy Director, Division of Research and Statistics before the Subcommittee on Securities and Investment, Committee on Banking, Housing, and Urban Affairs, U.S. Senate May 16, 2006)
  - Financing triggers

Is the Systemic Risk due to Hedge Funds Changing Over Time?

- Possible sources of change:
  - Market risks
  - Operational risks
  - Financing risks

  - Regulatory policies
  - Legal arrangements
    - Side-car agreements
  - Disclosure policies
  - Quality of management teams
  - Risk management policies and procedures
  - Crowdedness of trades